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09/815,849	03/23/2001	Nobuyuki Tanaka	14447	5767

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EXAMINER

PYZOCHA, MICHAEL J

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/815,849

Applicant(s)

TANAKA, NOBUYUKI

Examiner

Michael Pyzocha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-6 are pending.
2. Amendment filed 01/12/2005 has been received and considered.

***Specification***

3. Examiner acknowledges clerical error in the previous Office action, which objected to claims 64-81 and 141-158, which should have only included pending claims 1-6.
4. After further examination of the specification this objection is withdrawn because of Applicant's argument that the structure corresponding to the means-plus-function limitations is clearly stated in the specification.

***Claim Objections***

5. The objections to claims 2 and 3-4 are withdrawn based on the amendment filed on 01/12/2005.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Donescu et al (U.S. 6,674,873).

As per claim 1, Donescu et al discloses frequency region converting means supplied with an original image of one frame divided into a plurality of blocks each consisting of a plurality of pixels, for converting said original image into a frequency-converted image data of a frequency region block by block (see column 6 lines 45-53); electronic watermark data memorizing means for preliminarily memorizing a plurality of electronic watermark data; insertion information memorizing means for memorizing insertion information for designating the electronic watermark data to be inserted corresponding to the respective blocks among said electronic watermark data stored in said electronic watermark data memorizing means; electronic watermark data selecting means for selecting said particular electronic watermark data designated by said insertion information block by block from said electronic watermark memorizing means to produce a selected electronic watermark

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data; and insertion apparatus electronic watermark data inserting means for inserting said selected electronic watermark data in said frequency- converted image data of the frequency region to produce an electronic watermark inserted composite image data (see column 7 lines 21-30 where it is inherent that to insert a watermark there must be memory to store the watermark data, information stored on what part of the watermark data to insert, and means for selecting where to insert the watermark data).

As per claim 2, Donescu et al discloses frequency region converting means supplied with an original image of one frame divided into a plurality of blocks each consisting of a plurality of pixels, for converting said original image into a frequency-converted image data of a frequency region block by block (see column 6 lines 45-53); quantizing means for quantizing said frequency-converted image data into a quantized image data (see column 6 lines 54-58); electronic watermark data memorizing means for preliminarily memorizing a plurality of electronic watermark data; insertion information memorizing means for memorizing insertion information for designating the electronic watermark data to be inserted corresponding to the respective blocks among said electronic watermark data stored in said electronic watermark data memorizing means; electronic

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watermark data selecting means for selecting said particular electronic watermark data designated by said insertion information block by block from said electronic watermark memorizing means to produce a selected electronic watermark data; and insertion apparatus electronic watermark data inserting means for inserting said selected electronic watermark data in said frequency- converted image data of the frequency region to produce an electronic watermark inserted composite image data (see column 7 lines 21-30 where it is inherent that to insert a watermark there must be memory to store the watermark data, information stored on what part of the watermark data to insert, and means for selecting where to insert the watermark data); and Huffman coding means for carrying out a Huffman coding on said electronic watermark inserted composite image data (see column 6 lines 59-64).

As per claim 3, Donescu et al discloses an electronic watermark detection apparatus comprising: insertion information memorizing means for preliminarily memorizing insertion information for designating a type of electronic watermark data to be inserted blocks by block in one frame divided into a plurality of blocks; data extracting means, supplied with an electronic watermark inserted composite image divided into a plurality of blocks in which individual electronic watermark

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data are inserted block by block, for extracting, on the basis of said insertion information, the electronic watermark data by adding the blocks in which the same electronic watermark data are inserted to produce extracted data; electronic watermark data memorizing means for preliminarily memorizing a plurality of electronic watermark data inserted in the respective blocks; electronic watermark data detecting means for calculating a statistical similarity between said extracted data and the respective electronic watermark data stored in said electronic watermark data memorizing means; and determining means for determining, on the basis of said statistical similarity, whether or not said electronic watermark data is detected (see column 13 lines 25-46 where it is inherent that the detection device has means for memorizing the type of watermark data and the watermark data).

As per claim 4, Donescu et al discloses an electronic watermark detection apparatus comprising: insertion information memorizing means for preliminarily memorizing insertion information for designating a type of electronic watermark data to be inserted block by block in one frame divided into a plurality of blocks; data extracting means, supplied with an electronic watermark inserted composite image divided into a plurality of blocks in which individual electronic watermark

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data are inserted block by block, for extracting on the basis of said insertion information the electronic watermark data in said electronic watermark inserted composite image by adding the blocks in which the same electronic watermark data are inserted to produce extracted data; electronic watermark data memorizing means for preliminarily memorizing a plurality of electronic watermark data inserted in the respective blocks; electronic watermark data detecting means for calculating a statistical similarity between said extracted data and the respective electronic watermark data stored in said electronic watermark data memorizing means; electronic watermark data accumulating means for accumulating said statistical similarity for a predetermined time interval to produce an accumulated addition value; and determining whether or not said determining means for electronic watermark data is detected by comparing said accumulated addition value with a predetermined threshold value (see column 13 line 62 through column 14 line 9 and column 13 lines 25-46).

As per claim 5, Donescu et al discloses an electronic watermark detection apparatus comprising: insertion information memorizing means for preliminarily memorizing insertion information for designating a type of electronic watermark data to be inserted block by block in one frame divided into a



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plurality of blocks; decoding means supplied with a Huffman coded composite image obtained by Huffman coding an electronic watermark inserted composite image divided into a plurality of blocks in which individual electronic watermark data are inserted block by block decoding said Huffman coded composite image block by block to produce a decoded composite image; data extracting means for extracting, On the basis of said insertion information, the electronic watermark data in said decoded composite image by adding the blocks in which the same electronic Watermark data are inserted to Produce extracted data; data memorizing means for preliminarily memorizing a plurality of electronic watermark data inserted in the respective blocks; electronic water data detecting means for calculating a statistical similarity between said extracted data and the respective electronic watermark data stored in said electronic watermark data memorizing means; and determining means for determining, on the basis of said statistical similarity, whether or not said electronic watermark data is detected (see column 13 line 62 through column 14 line 9 and column 13 lines 25-46).

As per claim 6, Donescu et al discloses an electronic watermark detection apparatus electronic watermark comprising: insertion information memorizing means for preliminarily

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memorizing insertion information for designating a type of electronic watermark data to be inserted block by block in one frame divided into a plurality of blocks; supplied with a Huffman coded composite image obtained by Huffman coding an electronic watermark inserted composite image divided into a plurality of blocks in which individual electronic watermark data are inserted block by block, for decoding said Huffman coded composite image block by block to produce a decoded composite image; data extracting means for extracting on the basis of said insertion information, the electronic Watermark data in said decoded composite image by adding the blocks in which the same electronic watermark data are inserted to produce extracted data; memorizing means for preliminarily memorizing a plurality of electronic watermark data inserted in the respective blocks; electronic water data detecting means for calculating a statistical similarity between said extracted data and the respective electronic watermark data stored in said electronic watermark data memorizing means; electronic watermark data accumulating means for accumulating said statistical similarity for a predetermined time interval to produce an accumulated addition value) and determining means for determining whether or not said is detected by comparing said with a predetermined threshold electronic watermark data

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accumulated addition value (see column 13 line 62 through column 14 line 9 and column 13 lines 25-46).

### ***Response to Arguments***

8. Applicant's arguments filed 01/12/2005 have been fully considered but they are not persuasive. Applicant argues: in claims 1-2 the limitations the apparatus includes a plurality of electronic watermark data that are selected by watermark selecting means from memorizing means to be inserted at a specific location, and in claims 3-6 insertion information memorizing means, watermark data detecting means and determining means.

Donescu teaches a plurality of watermark data as described in column 5 lines 6-12 and column 10 lines 23-25 a secret watermark data is associated with the creator or owner of the image and one of these is selected in the cited portion of column 10.

Donescu also teaches selecting means and memorizing means in column 10 lines 6-12. The key has to be stored in some sort of memory in order for it to be used and the key must be selected (or read) from this memory in order for the apparatus to function.

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Donescu teaches the information for selecting where to insert the watermark data as in column 7 lines 21-30. The processing in a specific order in the information telling the inserting means where to insert the watermark data.

As cited in column 13 line 62 through column 14 line 9, Donescu teaches watermark data detecting means (in the cited portion it is called watermark checking) and determining means as shown in column 14 where the correlation is used with a threshold to determine if the watermark is present. The apparatus of Donescu must store what kind of watermark data is inserted so it will be able to detect it using one of the methods described using figures 15-17.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rhoads et al (US 6229924), Cox et al (US 6154571), Florencio et al (US 6208745), and Adler et al (US 6275599 B1) teach watermarking using frequency and quantization of data.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this

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action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJP

A handwritten signature in black ink, appearing to read "Andrew Caldwell". The signature is fluid and cursive, with a large, stylized "C" at the end.

**ANDREW CALDWELL  
SUPERVISORY PATENT EXAMINER**